

# STATE OF HAWAII DEPARTMENT OF HEALTH

P. O. BOX 3378 HONOLULU, HI 96801-3378 In reply, please refer to:

# NEUROTRAUMA ADVISORY BOARD (NTAB) MEETING MINUTES August 28, 2014

Present: Lyna Burian, Angie Enoka, Sally Jones, Scott Sagum, Stella Wong

Excused: Elzy Kaina, Ian Mattoch, Alan Parker, Milton Takara

Others: Kevin Furutani, Hawaii Neurotrauma Registry (HNTR); Dylan Arrieta (HNTR);

Violet Horvath, Pacific Basin Rehabilitation Research and Training Center, (PBRRTC); Rita Manriquez, STBIAB Member; Nathan Murata, University of Hawaii Manoa; Dr. Matthew Koenig, Queen's Medical Center; Tina Robertson,

Queen's Medical Center; Susan Asai, Queen's Medical Center;

### DOH Staff: Curtis Inouye

- I. Call to Order Meeting was called to order by Ms. Stella Wong, Acting Chair, at 2:00 p.m. Quorum present.
- II. Approval of Minutes Motion to approve the April 24, 2014 NTAB Meeting Minutes as written made by Board Member Sally Jones. Motion second by Board member Lyna Burian. Motion accepted by Members with no questions. Board Members voted to accept the Minutes as submitted.
- III. Review of Agenda Ms. Wong reviewed the Board's agenda. Revision made to NTAB Meeting Agenda 8/28/14: Item B. under IV New Business. Board Member Ian Mattoch excused for this Meeting and will be placed on the next NTAB Meeting Agenda on 10/23/14. Board Members approved change to Meeting Agenda.

#### IV. New Business

A. Neurotrauma Advisory Board Membership:

On July 1, 2014, the Governor signed into law: HB2304 HD2 SD2 CD1 Relating to the Neurotrauma Advisory Board (ACT 191 (14). The law states that the NTAB shall consist of eleven members to be appointed by the Director of Health. DOH staff will be reviewing the current NTAB Membership and ensure that the Board Membership falls into accordance with what the law states. DOH staff will also address the vacancies in the Board Membership due to various reasons and fill positions as required by law. DOH will update Members at the next NTAB meeting. DOH staff mentioned that it has been difficult recruiting for a Spinal Cord Injury (SCI) survivor or a family member to be a Member of the NTAB. DOH appreciates any referrals for this Member position. Board Member Angie

Enoka mentioned that she knows a SCI survivor who may be interested and will be forwarding the contact information to the DOH for consideration. Tina Robertson, Queen's Medical Center, will also provide contact information of a potential SCI survivor.

B. Update on Surfer's Myelopathy by Ian Mattoch Defer to next NTAB Meeting on 10/23/2014

#### V. Old Business

A. Hawaii Concussion Awareness Management Program (HCAMP) Update: Nathan Murata from the University of Hawaii Manoa provided an annual summary of the data collected from 8/1/13 through 7/31/14 regarding baseline testing and concussions in all sports throughout the State's high schools. As Nathan reported, more than 10,000 base line testing were completed in this annual period statewide. There were 1370 concussions reported this period statewide for student athletes. Violet Horvath from PBRRTC commented that the overall rate of concussions to baselines on average was 14 percent for high schools statewide. By island, Maui had the highest rate of 29 percent (majority football concussions) followed by the Oahu Interscholastic Association with 16 percent, then the ILH with 11 percent. In the past, data on rate of concussions to baselines fluctuated. Nathan mentioned that reporting of concussions has improved year to year in high schools due to the education and awareness component on concussions and data has been more accurate.

Nathan also mentioned that he (University of Hawaii) outside of the DOH contract with HCAMP are using a vestibular/spatial awareness testing along with cognitive and balance testing, to assess student athletes of signs and symptoms after a concussion. Per Nathan, only a few schools will be a part of this testing due to the limited amount of equipment that is involved.

Addressing a question from Kevin Furutani (HNTR) regarding a student athlete's academic progress after a concussion, Nathan mentioned that HCAMP does not track a student's academic progress but provide education and awareness in regards to the help and assistance teachers require to address concerns when these student athletes returns to the classroom.

The number of baselines and concussions reported by islands and schools are included in Nathan's report.

HCAMP has also done a number of education and awareness presentations on concussions throughout the community during this period. Nathan has provided a list of these events in his report.

Please refer to the HCAMP report which is attached for further information.

B. Pacific Basin Rehabilitation Research Training Center-Hawaii Neurotrauma Registry Update:

Violet Horvath, Director PBRRTC-HNTR before reporting on the HNTR wanted to acknowledge and thank Rita Manriquez (STBIAB Member-Kauai) for her help

in obtaining and providing to HNTR a list of all the radio stations on Kauai and the various resources on Kauai.

Per Violet, her report on the HNTR is for the period that ends on July 31, 2014. There are a total of 66 participants in the registry. The HNTR have attended 31 events in the community and have reported over 3400 individuals who have visited their tables at these events. HNTR has done three print articles and will have print ads on the HNTR in the upcoming months. HNTR has done 130 information and referral contacts with individuals during this reporting period. A list of "highlights" for July, 2014 is listed in Violet's report. Additional information on the HNTR Advisory Board, best practices for nationwide neurotrauma registries, community outreach, and the HNTR volunteer program are included in Violet's report. Dylan Arrieta, HNTR, has been spearheading the social marketing and social media campaign. She reported that she has sent out PSA's to 56 radio stations via fax and received response from 2 radio stations; KSSK and HH Media Network. Dylan is awaiting confirmation by these radio stations regarding airing the PSA's. Dylan also sent out 48 e-mails to radio stations that only accept e-mails and 3 have confirmed that the psa' are in the queue but not sure when it will be aired. A radio station on Maui (KOPO) granted immediate air play and will be on for a month. HNTR also has three unique print ads (one for stroke, spinal cord injury, and traumatic brain injury) which will be published separately in the newspaper on Saturday/Wednesday/Saturday paper. The first ad (Stroke) will come out on a Saturday and a couple weeks later on a Wednesday will be the spinal cord injury ad, followed in a couple weeks on a Saturday by the brain injury ad. First launch of the ad will be on September 13, 2014 if all goes well.

Dylan also mentioned that HNTR has a Facebook page:

facebook.com/hawaiineurotraumaregistry

Dylan is also looking into getting some TV PSA's as well. Stella Wong mentioned that Hawaii News Now has a community section where they feature non-profit organizations. Dylan to call Hawaii News Now for additional information.

For additional information, refer to Violet's report which is attached.

#### C. Hawaiian Islands Regional Stroke Network Update:

Matthew Koenig, MD, Neurointensivist and stroke Neurologist with Queen's Medical Center provided an update on strokes and the Hawaiian Islands Regional Stroke Network Project. Dr. Koenig mentioned that stroke is a blockage of blood flow to parts of the brain. It can be treated with clot buster medication called tPa (tissue plasminogen activator) which is the only FDA approved medication for stroke. It must be given quickly (a few hours) after onset of symptoms. Per Dr. Koenig, what he has seen in Hawaii, like in many States, the percentage of patients treated with tpA are variable between hospitals and depends what hospital a person experiencing a stroke ends up at. Dr. Koenig also mentioned receiving appropriate treatment for a stroke depends on how educated the community is on the signs and symptoms of a stroke. It also depends on how efficient the hospital in that area is in taking care of a stroke patient and if there is an expert there in treating a stroke patient. Per Dr. Koenig, some hospitals on Oahu, and a lot of hospitals on the neighbor islands do not have a neurologist on staff. Dr. Koenig mentioned that the effort of this project, The Hawaiian Islands

Regional Stroke Network is to ensure that stroke patients at smaller hospitals that don't necessarily have a neurologist on staff 24 hours a day have access to a stroke expert through telemedicine. Dr. Koenig has said that this is a successful model implemented in different regions in the United States and is trying to adjust and apply this model here in Hawaii. Currently, this project has been going on for a little over three years. There are currently four spoke hospitals that are linked to the Queen's Medical Center, which is the hub site. A fifth, Kona Community Medical Center will be initiated in September, 2014. A contract has been fully executed with Maui Memorial Medical Center for Telestroke Network and credentialing of the telestroke MD's are in progress. The Queen's Medical Center is in talking stages with North Hawaii Community Hospital regarding the Telestroke Network. Dr. Koenig provided an updated report on the calls received from spoke site hospitals, medication administration summary, and discharge disposition. Refer to Dr. Koenig's report which is attached for more information. As part of the Telestroke Network contract, Dr. Koenig provided a list of community education events that the Project has participated in. The latest public health campaign by the Telestroke Network Project is the public education placard on stroke which will be placed in all buses on Oahu from May, 2014 to September, 2014. The list of community education events as well as a copy of the stroke placard are included in Dr. Koenig's report which is attached. Scott Sagum, NTAB Member from Kauai inquired about what happens to the stroke placards after September, 2014 and if some could be sent to Kauai to be placed in their buses if possible. Dr. Koenig mentioned that when it is removed from the buses, the Telestroke Project will get those placards and will send some over to Kauai for placement on Kauai's buses. Scott and Rita also mentioned why the two hospitals on Kauai are not involved in this Regional Stroke Network. Dr. Koenig mentioned that he has visited both hospitals on Kauai, Wilcox Hospital and Kauai Veterans Memorial Hospital and presented the Hawaiian Islands Regional Stroke Network Project. Both hospitals on Kauai have shown interest in the Project but at this time, will not participate in the Project. However, Dr. Koenig did mention that there is a Statewide Stroke Task Force convened by the Legislature to address hospitals working together to

# D. Neighbor Island TBI Activities:

treat patients with strokes.

Kauai: Board Member Scott Sagum reported no new activity on Kauai.

E. State Traumatic Brain Injury Advisory Board Update: The DOH requested updated information/biography of current STBIAB Members. The DOH is in the process of updating the Neurotrauma Website.

The TBI brochure sub-committee continues in developing the brochure. The DOH will provide air transportation to Neighbor Island STBIAB Member to visit the Brain Injury Resource Center on Oahu and possibly have some pictures taken to include in the TBI brochure.

#### F. DOH Update:

i. NT Special Fund Balance: Defer to next NTAB Meeting on 10/23/2014.

#### VI. Announcements

# A. Brain Injury Association of Hawaii:

Board Member Lyna Burian announced that the Brain Injury Education and Support Group Meetings will continue to be held at the Brain Injury Resource Center at 200 N. Vineyard Blvd. #210.

New Hours per Lyna:

First Saturday of the month: Meeting will be held from 11:00 a.m. to 1:00 p.m. Second and Third Wednesday: Hours are 5:30 p.m. to 7:00 p.m.

# VII. Next Meeting

Date: October 23, 2014 Time: 1:30-4:00 pm

Place: Kalanimoku & Neighbor Island VCCs

Adjourned: 3:25 p.m.

Recorded by Curtis Inouye



# Hawai'i Neurotrauma Registry Project (HNTR) Report For Neurotrauma Advisory Board (NTAB) October 23, 2014 1:30 p.m.—4:00 p.m.

Table 1: Hawai'i Neurotrauma Registry Update for September 2014

Dashboard Report through September 30, 2014

Dashboard Report through Sept	ember 30,	2014		
Item	Total through July 2014	August 2014	September 2014	Grand Total
Registry Participat	ion			
Number of unique participants in HNTR Registry	66	2	3	71
Public Education	1			
Public events attended by HNTR staff and volunteers	31	1	4	36
Number of individuals who visited HNTR tables at public events	3432	120	1281	4833
Number of HNTR brochures distributed	2496	120	1267	3883
Number of HNTR business cards distributed (incl. trivia cards)	869	360	259	1488
Neurotrauma educational materials distributed (incl. CDC info)	2896	37	1267	4200
Number of volunteers assisting with public events (duplicated count)	55	0	13	68
Networking with Profe	1			
Presentations about HNTR to professionals	14	1	0	15
Number of professionals who attended HNTR presentations	146	35	0	181
Networking contacts made with partners / collaborators	131	3	14	148
Events / presentations in conjunction with partners / collaborators	9	0	0	9
Media				
Print articles	3	1	0	4
Print ads	0	0	1	1
HNTR newsletters (quarterly, beginning October 2014)				
Distribution (Number of subscribers)				
Radio PSAs	0	104	0	104
TV PSAs	0	0	0	0
TV programs, appearances, or ads	0	0	0	0
Social media following (Facebook effective July 16, 2014)	1	4	1	6
Facebook Posts	1	8	6	15
Facebook Friends/Following	1	4	1	6

erral						
130	9	12	151			
217	12	21	250			
Volunteers/Trainings						
12	0	1	13			
64	0	1	65			
13	0	0	13			
	130 217 ngs 12 64	130 9 217 12  ngs  12 0 64 0	130 9 12 217 12 21  ngs  12 0 1 64 0 1			

#### Highlights of Project Accomplishments for August and September 2014

- There are 71 unique participants in the Registry
- The project participated in five (5) community outreach events that reached 1,401 individuals, with 1,367 HNTR brochures distributed
- We are working on three related research projects
- Our media campaign is well under way
- One new volunteer completed all background checks

#### **Registry Participants**

Of the 71 participants in the Registry, all but 9 filled out the survey completely. There are a few more women (40) than men (31). The majority (66) live on Oahu, with 3 on Hawaii, and one each on Kauai and Maui. Most first injuries reported were TBIs (36), followed by ischemic stroke (11), and acquired brain injury (6). All other categories had 5 or fewer. Eighteen people stated they had a second injury: Stroke (4), ischemic stroke (4), acquired brain injury (3), spinal cord injury (3), and 2 each for TBI and hemorrhagic stroke. Two people said they had a third injury, one each for hemorrhagic stroke and spinal cord injury.

The new survey was recently activated. The three September entries used the new survey, which includes a question on how the participant heard about HNTR. One each of the three responded newspaper/newsletter, radio, and table at public event.

#### **Advisory Board for HNTR**

Five people have agreed to be on the Advisory Board, all from Oahu. We are planning for a first meeting in November 2014. We continue to look for a few more members, especially from neighbor islands.

#### **Related Research**

- "Needs Assessment" we are compiling information on services for those who
  have experienced neurotrauma injuries and their families. These will go into a
  searchable database
- National and state registry best practices we just received human studies approval to call national and state registries to ask questions about their projects and request any results they have to share
- Definition of "cognitive rehabilitation" we are working on a definition of cognitive rehabilitation (especially for use in proposed legislation), what cognitive rehabilitation services insurance companies provide, and what they call these services (if not cognitive rehabilitation)

#### **Project Materials**

The Human Studies Committee:

- Approved the project for another year
- Approved the revised survey, which is now in use
- Approved the revised brochure, which includes a tear-off and mail-in flap

#### Outreach—Community Event/Presentations, September 2014 and Future

A total of 11 volunteers helped the project with community outreach during this period.

#### Completed as of September 30, 2014:

- September 6, 2014, Get Ready 'Ewa Beach Emergency Preparedness Fair, Kapolei Parkway
  - o Dispersed HNTR and neurotrauma injury information to 152 persons
- September 13, 2014, Be Prepared, Mānoa!, Disaster Preparedness Fair, Mānoa Valley District Park gymnasium (participation through Hui Malama Po'o)
  - o Dispersed HNTR and neurotrauma injury information to 195 persons
- September 26—28, 2014, Seniors' Fair/Good Life Expo, Neal Blaisdell Center
  - Dispersed HNTR and neurotrauma injury information to 725 persons over a 3-day period
- September 27, 2014, Be Prepared, Kailua!, Disaster Preparedness Fair, Kailua
   Whole Foods Parking lot
  - o Dispersed HNTR and neurotrauma injury information to 38 persons
- September 30, 2014, Kauai FHB PrimeTime Wellness Fair
  - o Dispersed HNTR and neurotrauma injury information to 190 persons

### <u>Future</u>: (subject to change)

- October 4, 2014, Windward Community College Ho'olaule'a
- October 5, 2014, Children & Youth Day, State Capitol Grounds
- October 9, 2014, "Intro to HNTR" presentation for Central O'ahu Caregivers Group (Wahiawa General Hospital)
- October 11—12, 2014, Oh Baby! Family Expo, Neal Blaisdell Center
- October 11, 2014, Annual Hawai i Hispanic Heritage Festival, Kapi olani Park

- October 24, 2014, Big Island (Hilo) FHB PrimeTime Wellness Fair
- October 25, 2014, Moving Day (Hawai'i Chapter National Parkinson Foundation), Honolulu Hale Civic Grounds
- October 26, 2014, KIDSFest, Bishop Museum
- November 5, 2014, "Intro to HNTR" presentation for Alu Like Senior Club, Waimanalo
- December 6, 2014, Mililani Christmas Craft Fair (participation through Hui Malama Po'o)
- January 17, 2015, Get Fit Fair (Mililani)

#### **Provide Information & Referral**

The Project Coordinator provided nine people with 12 pieces of information in August 2014, and 12 people with 27 resources during September 2014.

#### **Marketing and Social Media Campaign**

- Radio Advertisements One person from Hawaii Island joined the Registry in response to a PSA they heard on a local radio station
- Print Advertisements

#### Star-Advertiser

- The first print ad was on Stroke and was published on Saturday, September 13, 2014.
  - HNTR received two (2) phone calls after the ad ran
  - One (1) person with stroke joined the registry
  - One (1) person did not wish to join the registry at this time
- The second print ad was on SCI and was published on Wednesday,
   October 1, 2014. No response yet to this ad.
- The third print ad will be on TBI and is scheduled to be published on Saturday, October 18, 2014.
- HNTR had an ad in the Oh, Baby! Family Expo Guide
- HNTR Face Book was completed on July 16, 2014 and is maintained continuously. The HNTR Face Book page is at <a href="www.facebook.com/hawaiineurotraumaregistry">www.facebook.com/hawaiineurotraumaregistry</a>. The Project Assistant added an events calendar to the FB page. Furthermore, the Project Assistant visited FB pages of all event sponsors and liked their pages. The FB pages HNTR liked will show up in the "Liked By This Page" section of the Timeline, which will also show up in the sponsor pages.
- Email Marketing to Promote the Project
   The first HNTR quarterly newsletter will go out in October, 2014.
- Published Articles on HNTR
  - Ms. Sherry Goya wrote a description of her experience having a stroke and choosing to participate in HNTR. It is in the August/September 2014 issue, which is not yet available online.

# Hawaiian Islands Regional Stroke Network Update

(Funded by a grant from the Hawaii State Dept. of Health Neurotrauma Fund)

Hub site: The Queen's Medical Center

### **Current spoke sites:**

Current active sites are Molokai General Hospital (activated on 11/8/2011), Wahiawa General Hospital (activated on 6/21/2012) and Hilo Medical Center (activated on 8/1/13). The Queen's Medical Center West Oahu will be live October, 2014. The four spoke site hospitals – ED MDs and nurses, hospitalists, and administration - have been educated on stroke care paths and protocols and in-serviced on use of the technology. Kona Medical Center will be initiated in October 2014.

A Telestroke Network Spoke Hospital Affiliation Agreement has been fully executed with Maui Memorial Medical Center and credentialing of the telestroke MDs is in progress.

Total Calls	74		
Incomplete Calls	16	Triage calls, not telestroke	4
		Technical difficulties	12
Completed Calls	58	Molokai General Hospital	11
		Wahiawa General Hospital	30
		Hilo Medical Center	17
# IV tPA Administrations	26	# Transferred	18
		# Not transferred	8
Total Transfers	24	No tap Transfers	8

### IV tPA Administration Summary

tPA#	Spoke Site	Encounter Duration (min)	Transfer to QMC?	Initial NIHSS	Last NIHSS	DC Disposition
1	MGH	60	YES	6	1	Home
2	WGH	45	YES	9	2	Home
3	WGH	UTD	YES	16	16	Hospice
4	WGH	60	YES	5	0	Home
5	WGH	45	YES	14	0	Home
6	WGH	35	YES	13	13	SNF
7	WGH	40	YES	6	2	Home

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8	WGH	60	YES	5	0	Home
9	WGH	50	YES	8	ND	RHOP
10	WGH	30	YES	3	3	Home
11	WGH	40	YES	11	13	RHOP
12	HMC	40	NO	13	UTD	UTD
13	MGH	35	YES	11	6	RHOP
14	WGH	35	YES	15	3	RHOP
15	MGH	15	YES	7	0	Home
16	HMC	45	NO	6	4	Kaiser Acute
17	HMC	45	NO	7	UTD	SNF
18	WGH	40	NO	16	3	UTD
19	HMC	50	NO	17	UTD	Home
20	HMC	35	NO	21	21	UTD
21	MGH	40	YES	10	4	RHOP
22	HMC	30	NO	5	1	VA home
23	MGH	UTD	YES	9	10	RHOP
24	HMC	35	NO	ND	7	Home
25	WGH	30	YES	7	0	Home
26	MGH	UTD	YES	6	6	Home

- 7 patient did not receive tPA but transferred to QMC for closer monitoring and further evaluation.
- 1 patient transferred to QMC but final diagnosis of seizure
- 24 patients remained at spoke site since they were not tPA candidates and did not require a higher level of care. These patients were diagnosed with either mild stroke, completed stroke, complex migraine, old stroke, ICH or with transient symptoms.
- 7 patients at HMC who received t-PA remained at site.
- Telemedicine encounters require 40- 45 minutes of direct critical care time

#### Community Education

- QMC West O'ahu Community Health Fair- May 17, 2014, educated 1000 people on stroke signs and symptoms and telestroke network.
- Public health campaign 'Spot a Stroke' was a joint effort between DOH, QMC, and AHA that placed stroke education signs on every Oahu bus from May-September of this year. This campaign resulted in an estimated 14 million impressions on Oahu bus riders and was paid from our Neurotrauma Fund grant and the placement fee was donated by Ad Walls.

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- Dr Koenig filmed a promo with the Pacific Basin Telehealth Resource Center regarding the telestroke project. To view the video: <a href="http://vimeo.com/102377242">http://vimeo.com/102377242</a>
- 15 Craigside Place July 22, 2013, educated 100 seniors on "Stroke: What you should know."
- Waipio Senior Fair June 21, 2013, Hawaii Okinawan Center, partnered with Wahiawa General Hospital and Genentech to conduct stroke risk assessments with 240 people and educate on stroke signs and symptoms and telestroke network.
- QMC May 29, 2013, educated 150 medical center staff and guests on the stroke chain of survival (i.e. stroke risk factors, stroke signs and symptoms, acute stroke treatment and the telestroke network).
- Hawaii Dental Services May 16, 2013, educated 40 worksite staff on "Heart Disease and Stroke: What women should know."
- QMC April 24, 2013, educated 15 volunteers on "Stroke: What you should know."
- Moanalua Middle School Health and Safety Fair February 15, 2013, educated over 75 middle schoolers on signs and symptoms of stroke.
- Wahiawa Community Health Fair October 27, 2012, educated over 300 in the Wahiawa community about stroke and signs and symptoms and introduced them to Hawaiian Islands Regional Stroke Network Camera System.
- Article in Star-Advertiser on 10/18/12.

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# **Concussion Report for School Year 2014 - 2015**

Report Summary from 8/1/14 to 9/30/14

67 Schools	Total	BIIF	KIF	MIL	ILH	OIA
Number of Baselines 9/30/14	2422	573	34	219	573	1023
Number of Concusions 9/30/14	322	30	21	30	76	165
Number of Baselines 9/30/13	2997	626	91	193	989	1091
Number of Concusions 9/30/13	396	36	17	32	86	225
Concussions 8/1/12 to 9/30/12	426	40	23	45	72	246

- 1. 8/16/14, Waianae Health Fair
- 2. 8/20/14, Palama Settlement football
- 3. 10/26/14, HPH Kids Fest, Bishop Museum

SPORTS	Number of Baseline	Number of Concussion		
	8/1/14 to 9/30/14	8/1/14 to 8/31/14	9/1/14 to 9/30/14	Total to date
Baseball (M)	28	2	1	3
Baseball (F)	1	0	0	0
Basketball (M)	24	2	1	3
Basketball (F)	25	1	0	1
Boating Related (M)	1	0	0	0
Boating Related (F)	5	0	2	2
Cheerleading (M)	19	0	0	0
Cheerleading (F)	194	7	14	21
Football (M)	903	105	126	231
Football (F)	9	1	1	2
Golf (M)	1	0	0	0
Golf (F)	2	0	0	0
Lacrosse (M)	0	0	0	0
Lacrosse (F)	0	0	0	0
Martial Arts (M)	2	0	0	0
Martial Arts (F)	2	0	1	1
Soccer (M)	30	1	3	4
Soccer (F)	21	2	2	4
Softball	162	1	5	6
Swimming (M)	2	0	0	0
Swimming (F)	8	0	0	0
Tennis (M)	10	0	0	0
Tennis (F)	7	0	0	0
Track & Field (M)	6	0	0	0
Track & Field (F)	4	0	0	0
Volleyball (M)	27	0	0	0
Volleyball (F)	692	9	25	34
Wate Polo (M)	69	0	1	1
WaterPolo (F)	2	0	0	0
Wrestling (M)	5	1	1	2
Wrestling (F)	6	0	1	1
X-Country (M)	51	0	0	0
X-Country (F)	27	0	2	2
Others (M)	28	1	0	1
Others (F)	49	2	1	3
Total	2422	135	187	322

BIIF	Number of Baselines	Number of Concussion			
	8/1/14 to 9/30/14	8/1/14 to 8/31/14	9/1/14 to 9/30/14	Total to date	
School					
Hilo High School	0	1	1	2	
Honokaa High School	59	0	3	3	
Kamehameha Schools-Hawaii	155	0	6	6	
Kau High School	35	0	2	2	
Kea'au High School	76	0	2	2	
Kealakehe High School	174	1	6	7	
Kohala High School	1	0	0	0	
Konawaena High School	73	1	2	3	
Pahoa High School	0	0	0	0	
Waiakea High School	0	3	2	5	
Total (10 Schools)	573	6	24	30	

KIF	Number of Baselines	Number of Concussion			
	8/1/14 to 9/30/14	8/1/14 to 8/31/14	9/1/14 to 9/30/14	Total to date	
School					
Kapaa High Shchool	14	5	2	7	
Kauai High School	6	0	1	1	
Waimea High School	14	2	11	13	
Total (3 Schools)	34	7	14	21	

MIL	Number of Baselines	Number of Concussion			
	8/1/14 to 9/30/14	8/1/14 to 8/31/14	9/1/14 to 9/30/14	Total to date	
School					
Baldwin High School	83	2	3	5	
Hana High School	9	0	0	0	
King Kekalike High School	53	2	3	5	
Lahainaluna High School	30	6	3	9	
Lanai High School		0	0	0	
Maui High School	44	4	7	11	
Molokai High School		0	0	0	
Total (10 Schools)	219	14	16	30	

ILH	Number of Conc			
	Number of Baselines	0/1/14+00/21/14	0/1/14+00/20/14	Total to date
School	8/1/14 to 9/30/14	8/1/14 to 8/31/14	9/1/14 to 9/30/14	iotal to date
	2	2	2	
ASSETS School	3	3	3	
Christian Academy	13	0	0	0
Damien High School	137	1	7	8
Hanalani School	23	0	2	2
Hawaii Baptist Academy	45	3	6	9
Honolulu Waldorf School	0	0	0	0
Iolani High School	48	0	4	4
Island Pacific Academy	3	0	0	0
Kamehameha Schools-Oahu	1	4	0	4
La Pietra Hawaii School	52	0	0	0
Lanakila High School	0	0	0	0
Le Jardin Academy	54	0	0	0
Lutheran High School	25	0	1	1
Mid-Pacific Institute	102	1	5	6
Pacific Buddhist Academy	2	0	0	0
Sacred Heart Academy	12	0	1	1
St. Andrews Priori	4	0	0	0
St. Francis	41	1	1	2
St. Louis School	2	15	15	30
University Lab High	6	3	0	3
Total (21 Schools)	573	31	45	76

OIA	Number of Baselines	Number of Concussion			
	8/1/14 to 9/30/14	8/1/14 to 8/31/14	9/1/14 to 9/30/14	Total to date	
School					
Aiea High School	48	1	2	3	
Anuenue School	17	3	5	8	
Campbell High School	55	7	5	12	
Castle High School	0	5	5	10	
Farrington High School	99	3	3	6	
Kahuku High School	0	0	1	1	
Kailua High School	42	7	4	11	
Kaimuki High School	64	2	6	8	
Kaiser High School	60	0	1	1	
Kalaheo High School	33	5	9	14	
Kalani High School	51	3	3	6	
Kapolei High School	110	3	1	4	
Leilehua High School	54	8	12	20	
McKinley High School	38	2	5	7	
Milliani High School	46	3	5	8	
Moanalua High School	73	4	11	15	
Nanakuli High School	13	1	0	1	
Pearl City High School	9	2	4	6	
Radford High School	102	7	4	11	
Roosevelt High School	65	3	0	3	
Waialua High School	39	4	1	5	
Waianae High School	0	2	1	3	
Waipahu High School	5	2	0	2	
Total (23 Schools)	1023	77	88	165	